

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
to Ensure Compatibility with	)	
Enhanced 911 Emergency Calling Systems	)	
	)	
	)	

**THUMB CELLULAR LIMITED PARTNERSHIP  
REPORT ON IMPLEMENTATION OF  
WIRELESS E911 PHASE II AUTOMATIC LOCATION IDENTIFICATION**

Thumb Cellular Limited Partnership ("Thumb Cellular") hereby submits its Report on Implementation of Wireless E911 Phase II, Automatic Location Identification.

**I. Background Contact Information**

**A. Carrier Identifying Information**

Thumb Cellular is the licensee of Michigan 10 RSA - Tuscola, Call Sign KNKQ268, a rural cellular market. Thumb's TRS number is 814905.

**B. Contact Information**

Paul Picklo

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## **II. E911 Phase II Location Technology Information**

### **A. Type of Technology**

Thumb Cellular has decided to implement a network-based solution to the Commission's Automatic Location Identification ("ALI") requirements under Phase II of E911 deployment. Thumb Cellular is still undergoing the process of choosing a vendor for provision of a network-based technology. Thumb Cellular is reviewing proposals from three vendors: Sigma-One Communications, Grayson Wireless, and TruePosition.

Thumb Cellular, as a rural service provider, originally expected to utilize a handset-based E911 technology for its system. The Commission has acknowledged that handset E911 ALI technology seems to be the most logical solution for implementation of Phase II requirements in rural areas, because handset-based solutions are expected to cost significantly less than network-based solutions.

Thumb Cellular has been working with its switch-sharing partner, CenturyTel, as Thumb Cellular reviews its options for meeting the FCC's E911 Phase II requirements. CenturyTel and Thumb Cellular have sought information on handset-based technology from several equipment vendors, and as a result, Thumb Cellular has concluded that no such solution will become available in time to meet the Commission's E911 Phase II implementation deadlines.

Because no vendor, to Thumb Cellular's knowledge, can provide a handset-based solution in the foreseeable future, Thumb Cellular is obliged to select a network-based solution for E911 Phase II. However, Thumb Cellular is concerned that the cost of utilizing a network-based solution will be unreasonably burdensome. Thumb Cellular has calculated that use of a network-based

solution will likely cost approximately \$42,000 per base station to implement. Thumb Cellular estimates that its total costs for E911 Phase II deployment will be approximately \$1.2 million, or \$47.25 per subscriber. Thumb Cellular respectfully submits to the Commission that these costs are cause for dismay, given the lack of a cost recovery mechanism for E911 Phase II implementation.

**B. Testing and Verification**

Thumb Cellular is in the process of selecting a vendor to provide a network-based solution for its primarily rural wireless markets. Thumb Cellular intends to utilize testing and verification methods that conform with OET Bulletin No. 71.

**C. Implementation Details and Schedule**

Having chosen a network-based solution to comply with E911 Phase II, Thumb Cellular intends to utilize an ALI overlay network, constituting:

- wideband receivers co-located within each cellular base station within a requesting Public Safety Answering Point's ("PSAP's") boundaries;
- collection and analyzing equipment co-located within the Mobile Switching Center ("MSC"); and
- an interface into a third-party Mobile Positioning Center ("MPC") to the network-based location system at each MSC.

Thumb Cellular is in the process of selecting a vendor for its network-based ALI technology. Once it has selected a vendor, Thumb Cellular will work closely with that vendor to develop a viable implementation schedule.

**D. PSAP Interface**

Thumb Cellular intends to use PSAP interface hardware composed of a third-party MPC interfacing to both the MSC and the network-based location system via a standard PN3890 interface.

The interface to the PSAP would be specific to, and dependent on, the requirements of the third-party MPC provider (such as SCC Communications).

**E. Existing Handsets**

Thumb Cellular plans to utilize a network-based solution to implement the FCC's Phase II ALI requirements. Therefore, Thumb Cellular does not expect to develop a method for upgrading or replacing existing customer handsets, other than through procedures that are currently in place.


**F. Location of Non-Compatible Handsets**

Thumb Cellular intends to implement a network-based solution for Phase II E911. Thumb Cellular therefore perceives no need to establish plans for locating incompatible handsets.

**G. Other Information**

Thumb Cellular has not received any PSAP Phase II requests.

THUMB CELLULAR LIMITED PARTNERSHIP

  
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Nancy Killien Spooner  
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November 9, 2000